



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,147	03/17/2004	Sethu K. Madhavan	GP-304612 (2760/165)	3953
60/770 7590 12/17/2010 General Motors Corporation c/o REISING ETHINGTON P.C. P.O. BOX 4390 TROY, MI 48099-4390				
EXAMINER				
GHEBRETNSAE, TEMESGHIEN				
ART UNIT		PAPER NUMBER		
2611				
MAIL DATE		DELIVERY MODE		
12/17/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/802,147

Applicant(s)

MADHAVAN ET AL.

Examiner

Temesghen Ghebretinsae

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/21/10.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-25, 27-39, 41 and 42 is/are rejected.
- 7) ☒ Claim(s) 26 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-940)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 10/12/10
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Claims 20-42 are pending in the instant application. The final rejection mailed 4/16/09 has been withdrawn and this is non-final rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 20-25,27-39,41-42,are rejected under 35 U.S.C. 103(a) as being unpatentable over Preston in view of Huang et al (2003/0133439 A1) new cited reference.

Regarding claim 20,25,29,30,31,33,34,39,Preston discloses a method of communicating data over a voice channel of a wireless communication system (abstract), comprising the steps of: generating (fig. 4) a periodic data signal (fig. 6, i.e. f1 & f2 are each periodic) modulated with data (fig. 4, ref. 30; fig. 6, data bits "1" and "0") and periods of silence (col. 6, lines 24-30); and sending (fig. 2, ref. 19) the periodic data

signal (fig. 2, ref. 26) as a voice communication through a vocoder (fig. 2, ref. 18) and over a voice channel (fig. 2, ref. 34) of a wireless communication system. Preston discloses a method of transmitting digital data using a cellular phone (fig. 2, ref. 14) commonly utilized for the transmission of audio voice signals.

Preston differs from the claimed invention in that the "sacrificial bits" contained in the IBS packet 70 are not "gaps". However, Huang from the same field of endeavor discloses generating a periodic data (100) modulated with data (600a) and periods of silence (600b) wherein the periods of silence comprises gaps (600b) in the data during which no modulation occurs (see fig.6) {generating a periodic data signal modulated with (1) data using FSK and (2) period of silence during which no frequency shift keying modulation occurs}. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace "the generated periodic signal" of Huang in the system of Preston since there is no new or unexpected result by doing so (the combination would have yielded predictable results).

Regarding claim 21, 35 Preston in view of Huang disclose the limitations of claim 20 29, and 34 as applied above. Further, Preston discloses that the wireless communication system is a cellular network (fig.1).

Regarding claim 22, 32, 36 Preston in view of Huang disclose the limitations of claim 20, 29 and 34 as applied above. Further, Preston discloses that the network transmission standard is CDMA (col. 4, line 54).

Regarding claim 23, 37, Preston in view of disclose the limitations of claim 20 29and 34 as applied above. Further, Huang discloses generating the periodic data signal with a data sequence using frequency shift keying (fig.6 para.0039, 0079, 0081).

Regarding claim 24, 27-28, 41-42 Preston in view of disclose the limitations of claim 20, 29and 34 as applied above. Preston and Huang do not disclose the "duration" of each of the periods of silence. However, such limitation would have been an obvious design choice.

Response to Arguments

9. Applicant's arguments with respect to claims 20-42 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

10. Claims 26 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hiedemann et al(2002/0030874) is cited to show that a method for communicating data over a channel of a wireless communication system comprising generating a data signal that includes modulated data and a periods of silence .

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temesghen Ghebretinsae whose telephone number is 571-272-3017. The examiner can normally be reached on Monday-Friday from 8 to 6. The examiner can also be reached on alternate .

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ghayour Mohammed, can be reached on 571-272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Temesghen Ghebretinsae
Primary Examiner
Art Unit 2611

/Temesghen Ghebretinsae/

Primary Examiner, Art Unit 2611

12/8/10.